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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/883,817	06/18/2001	Jens Barrenscheen	GR 00 P 12246	2567

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EXAMINER	
KNOLL, CLIFFORD H	

ART UNIT	PAPER NUMBER
2112	

DATE MAILED: 05/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/883,817	BARRENSCHEEN ET AL.	
	Examiner	Art Unit	
	Clifford H. Knoll	2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7-28,30-46,93 and 94* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5, 7-28, 30-46, and 93-94* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)

DETAILED ACTION

This Office Action is responsive to communication filed 4/21/05. Currently claims 1-5, 7-28, 30-46, and 93-94 are pending.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

1. *Claims 1-5, 8-28, 31-46, and 93-94 are rejected under 35 U.S.C. 102(e) as being anticipated by Deng (US 6347097).*

Regarding claims 1 and 24, Deng discloses transmitting in units data from a first device to one or more second devices together with information (e.g., col.6, lines 34-40); forming units at least partly with at least one region defining a given time slot within which the devices transmitting no data can output data representing specific information (e.g., col.6, lines 29-32; Figure 4, "subaction gap"), defining in the enabled devices, settings selected from the group consisting of a setting to determine under which conditions data are to be output within the given time slot, a setting which data representing information are to be output within the given time slot and a setting at which points in time within the time slot the data are to be output (e.g., col.4, lines 47-52, "generation of a 'cycle' signal"; col.4, lines 55-57, "one node at a time").

Regarding claims 2 and 25, Deng also discloses determining settings before transmission (e.g., col.4, lines 47-52).

Regarding claims 3 and 26, Deng also discloses with one or more devices connected to the bus (e.g., col.3, lines 56-57).

Regarding claims 4 and 27, Deng also discloses determining settings based on one of data and instructions transmitted (e.g., col.4, lines 47-52).

Regarding claims 5 and 28, Deng also discloses determining settings upon initializing the devices (e.g., col.4, lines 47-52).

Regarding claims 8 and 31, Deng also discloses frames (e.g., Figure 6).

Regarding claims 9 and 32, Deng also discloses messages (e.g., Figure 5, "acknowledge").

Regarding claims 10 and 33, Deng also discloses serial transmission at a clock rate (e.g., col.1, lines 39-40).

Regarding claims 11 and 34, Deng also discloses determining with the data and information contained in the units containing the data to be transmitted together with the information whether certain devices output information onto the bus at which points in time (e.g., col.4, lines 47-52, "generation of a 'cycle' signal"; col.4, lines 55-57, "one node at a time").

Regarding claims 12 and 35, Deng also discloses determining with the data and information contained in units output (e.g., col.6, lines 29-32).

Regarding claims 13 and 36, Deng also discloses defining the given time slot for transmission of one or more bits (e.g., col.6, lines 34-40).

Regarding claims 14 and 37, Deng also discloses a positive acknowledge bit (e.g., col.7, lines 51-54).

Regarding claims 15 and 38, Deng also discloses acknowledging fault free reception by outputting a positive acknowledgement bit onto the bus (e.g., col.7, lines 51-54).

Regarding claims 16 and 39, Deng also discloses having to acknowledge fault free reception by outputting a positive acknowledge bit, the plurality set such that the positive acknowledge bits are output by the plurality of devices at different points in time if appropriate (e.g., Figure 4, "ACK").

Regarding claims 17 and 40, Deng also discloses devices for which the data is not intended do not output any data onto the bus at least at the points in time at which the devices for which the data transmitted via the bus is intended must be able to acknowledge the fault-free reception of data (e.g., Figure 4, "ACK GAP"; col.4, lines 55-57).

Regarding claims 18 and 41, Deng also discloses a negative acknowledge bit (e.g., col.7, lines 51-54).

Regarding claims 19 and 42, Deng also discloses exclusively devices for which the data transmitted via the bus is intended to signal non-fault free reception of the data (e.g., col.7, lines 51-54).

Regarding claims 20 and 43, Deng also discloses they have to signal the non-fault free reception of the data by outputting a negative acknowledge bit at least some of

the plurality of the devices are set such that they output at the same time the negative acknowledge bits that are to be output if appropriate (e.g., col.6, lines 45-52, "ack-gap").

Regarding claims 21 and 44, Deng also discloses devices for which the data transmitted is not intended do not output any data (e.g., col.6, lines 49-52).

Regarding claims 22 and 45, Deng also discloses devices output positive acknowledge bits at different points in time or negative acknowledge bits at other different points in time (e.g., col.7, lines 51-54).

Regarding claims 23 and 46, Deng also discloses devices set such that a content of the current frame or of a specific preceding frame or the content of the current message determines which of the devices has to output which information onto the bus at which point in time (e.g., col.6, lines 3-12).

Regarding claims 93 and 94, Deng also discloses transmitting data and information concerning at least one of transmission and use of data from one device to others (e.g., col.6, lines 34-40), forming units at least partly with at least one region defining a given time slot (e.g., col.6, lines 29-32; Figure 4, "subaction gap"), defining variable settings selected from the group consisting of a setting to determine under which conditions data are to be output within the given time slot, a setting which data representing information are to be output within the given time slot and a setting at which points in time within the time slot the data are to be output (e.g., col.4, lines 47-52, "generation of a 'cycle' signal"; col.4, lines 55-57, "one node at a time").

Claim Rejections - 35 USC § 103

2. *Claims 7 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deng as applied in respective parent claims, in view of Levy (US 6212633).*

Deng does not expressly mention the implementational detail of a non-volatile memory device; however these devices are widely known and appreciated in the field for storing information, as exemplified by Levy. Levy discloses storing the settings relating to the given time slot in non-volatile memory devices (e.g., col.18, line 65 – col. 19, line 13).

It would be obvious to combine Levy with Deng, because Levy teaches a particular use of non-volatile memory in the improvement of storing settings for transmitting data in a 1394 serial bus implementation, such as that taught by Deng. Therefore it would be obvious to one of ordinary skill in the art to combine Levy with Deng at the time the invention was made.

Response to Arguments

Applicant's arguments, filed 4/21/05, with respect to rejection under 35 USC §112(1) have been fully considered and are persuasive. The rejection under this section has been withdrawn.

Applicant's arguments with respect to the rejections under 35 USC §§ 102, 103 have been fully considered but they are not persuasive.

Regarding the rejection using Deng, Applicant argues that Deng fails to disclose "receivers downstream of the sender that are not intended to receive the message output an acknowledgement of data received fault-free"; however, this distinction is not supported in the claims.

Applicant cites in the specification where it is stated that these devices "do not output any data onto the bus or any information indicating whether or not they have received the frame or the message in a fault-free condition up to then" (cited at p. 12, from the specification (p. 27, line 1 – p. 28, line 2). The passage itself is unclear: while the Applicant has underlined (and quoted in full) an intermediate phrase stating that "they have to acknowledge", it is not clear how such an acknowledgement might be made if in fact they "do not output any data onto the bus". This observation is merely noted by the Examiner, since this purported feature, even if interpreted to be part of the specification, does not find support in the recitation.

As to the recitation, it is claimed that "second and third devices can output onto the bus specific information and/or data" as "within a given time slot" (claim 1). Applicant argues that Deng does not disclose this feature; however, the time slot relied upon in Deng includes both the sub-action gap, when the concerned device responds, and the subsequent arbitration period, where the device not concerned *can* output onto the bus specific information.

Regarding claims 93 and 94, Applicant argues that Deng does not disclose "varying the length of the time slot to accommodate responses/acknowledgements possibly form a plurality of devices" (p. 15); however, the recitation does not support this distinction. In particular claims 93 and 94 do not recite "varying the length of the time slot", but rather "defining ... variable settings of the given time slot selected from a group", and further, the instant claims do not recite "responses/acknowledgements", but rather "information and/or data ... to be output", a determination as to "which information and/or data are to be output" and a "setting to determine at which points in time ... the information and/or data are to be output" (claim 93). It is determined that Deng in fact discloses this. As treated supra, the time slot of Deng includes both a sub-action gap, and the arbitration interval that follows. Deng provides for the precise time intervals for these output intervals as claimed.

Conclusion

THIS ACTION IS MADE FINAL. *Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).*

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clifford H. Knoll whose telephone number is 571-272-3636. The examiner can normally be reached on M-F 0630-1500.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H. Rinehart can be reached on 571-272-3632. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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